

**Psychology 2307- Introductory Statistics for the Behavioral Sciences**

**Fall 2016**

**Instructor:**

Kelly Lara

BAB 208, 956-437-0163

Office Hours: 8:00 a.m. – 10:30 a.m., M-R

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**Prerequisite:**

There is no prerequisite for this course. It is strongly recommended that before taking this course students should have already completed their core curriculum math requirement (MATH 1310 or higher).

**Class Meetings:**

TR, 11:00 a.m. – 12:15 p.m.

**Required Texts:**

McCall, R.B. (2001). Fundamental statistics for behavioral sciences (8th. ed.). Belmont, CA: Thomson Wadsworth.

Kirpatrick, L.A., & Feeney, B.C. (2012). A simple guide to SPSS for Windows for version 20.0. Belmont, CA: Thomson Wadsworth.

**Additional Materials:**

You will also need a calculator for this course. The Texas Instruments TI-30 would be a good model to use in the course. The calculator you choose should let you calculate descriptive statistics (mean, standard deviation, and variance) on a set of numbers that you enter into a statistics register. Don't spend too much or too little money on a calculator for the course.

## **Student Learning Objectives (SLOs)**

The graduating psychology student will attain a level of competency in the area of experimental methodology in psychology that indicates value has been added over the course of their psychology education.

### **Student Learning Objectives for this specific course:**

#### *Required Task-Mastery of Basic Statistical Methodology:*

Goal One: The student will demonstrate the ability to decide on and choose the proper statistical test to be used to answer a specific question. This will be assessed on homework assignments and exams. (Cognitive Domain: Evaluation)

Goal Two: The student will demonstrate the ability to summarize the results of their statistical analyses and communicate them in a professional manner on both homework assignments and on exams. (Cognitive Domain: Synthesis)

#### *Required Task-“Plain Language” Written Explanation of Statistical Findings:*

Goal Three: The student will write an explanation of the results of particular statistical analyses they perform in “plain language” that will relate the information to an audience of educated people who have not had a statistics course. This will be assessed on homework assignments and exams. (Cognitive Domain: Synthesis)

Goal Four: The student will create a brief and accurate summary of particular statistical analyses they perform that can be understood by introductory psychology students. This will be assessed on homework assignments and exams. (Psychomotor Domain: Creation)

#### *Required Task-Understanding the Abuse Potential of Statistical Findings:*

Goal Five: From knowledge gained via course discussion, the student will be able to compare past examples of the abuse of statistical findings to those in our present-day world in written form. This will be assessed via article interpretation exercises. (Cognitive Domain: Evaluation)

Goal Six: The student will freely express an opinion that shows the student understands how statistical information can be abused and “How to Lie with Statistics.” This will be assessed on homework assignments and exams. (Affective Domain: Value Development)

## **Student Learning Objective (SLOs)**

The graduating psychology student will attain a level of emotional intelligence that indicates that value has been added over the course of their psychology education.

### **Student Learning Objectives for this specific course:**

#### *Required Task-Reaction Reports:*

Goal Seven: The student will demonstrate the ability to engage in the self-expression of emotions by writing weekly reaction reports. (Affective Domain: Respond)

Goal Eight: The student will demonstrate value development by reporting an emotion they experienced by writing about it in the reaction reports. (Affective Domain: Value Development)

## **Purpose of the Course:**

PSY 2307 is designed to introduce you to the techniques used in conducting analyses of social science research data. The course will expose you to both descriptive statistical operations (mean, median, mode, etc.) and inferential statistical operations (t-tests, one-way ANOVA, and two-way ANOVA). This course is important in that it will provide you the tools to understand many of the results reported in social science research studies. You should also be able to conduct the proper basic analyses on data you may collect after completing this course. You will also be introduced to a computer based statistical package called SPSS in this course. The attached schedule lays out a tentative plan for the fall, at least in terms of the general topics we will cover in the course.

## **COURSE REQUIREMENTS:**

Students are expected to:

- 1) study assigned materials before the class meeting in which the readings are discussed, bringing their ideas and questions to each class,
- 2) complete all assignments and turn them in as scheduled, and
- 3) regularly attend and participate the class.

## **ATTENDANCE POLICY:**

You are responsible for reviewing the university policies on Absences and Class Attendance in the SRSU Student Handbook. This is a web course and it subject to the Sul Ross State University Online Participation Policy. It is the student's responsibility to check the Discussion Board on Blackboard and their Sul Ross email continuously for the duration of the course. In order for you to remain enrolled in ED 6342, you must reply to the Blackboard Discussion Board "Online Participation Policy" forum by the deadline posted on the schedule contained in this syllabus. It is policy at Sul Ross State University that, if a student is enrolled in a web-delivered course and fails to stay active for a period of 3 weeks in a long semester, or for 1 week during a summer session, fails to log in, fails to submit assignments, and/or does not reply to emails from the instructor, he/she will be dropped from the course with a grade of "F." You may access the "Online Participation Policy" forum by entering Blackboard, then selecting Discussion Board. Please follow the directions regarding your required response. You will be expected to check your Sul Ross email inbox Discussion Board forum daily for the duration of the semester.

## **GRADING:**

Course grades will be assigned on the basis of the TOTAL number of points students accumulate during the fall across tests, quizzes and homework, and participation (completing homework on time, etc.). All tests, quizzes, and homework assignments are required, will be cumulative, and will involve calculations and problem solving. Tests and quizzes will be based on chapters from the text, lectures, and discussion. Students should check their exam scores after each test. If a student feels there is an error in their score, it is her or his responsibility to contact the instructor. Test scores will only be corrected up until the next test is administered. After a subsequent test is

administered, no change in previous scores will be made. We will be keeping a brisk pace as we go through the material in the course. It is vital that you turn in homework assignments on time. One of my pet peeves is when students turn in assignments after the agreed due date. Therefore, if you turn in all your homework assignments on time, an additional 5%, or half a letter grade, will be added to your homework and quiz score total. If, however, you turn in an assignment late, 5%, or half a letter grade, will be deducted from your score on that particular assignment for each day it is late. The final exam will cover material from the entire semester and will be slightly longer than the previous exams. The cumulative final exam is scheduled for MONDAY DECEMBER 5, 2016, from 10:15 a.m. - 12:15 a.m. in LH 300. I want each of you to know that everyone in this course can earn an "A," when they accumulate enough points. When you earn 90 percent or more of the points possible in the course you will have earned an "A," 80 to 89 percent of the points a "B," and so on. Grades will be based on the following distribution (points to be determined): Tests 50% Quizzes & Homework 40% Participation 10% \_\_\_\_ Total 100%

### **SRSU DISABILITY SERVICES:**

The university is committed to equal access in compliance with the Americans with Disabilities Act of 1990 (ADA) and Section 504 of the Rehabilitation Act of 1973. The Disability Services Coordinator, in Counseling and Student Support Services, is responsible for ensuring that students with disabilities are provided opportunity for full participation in programs, services, and activities.

Students seeking disability services must contact the Disability Services Coordinator in the University Center, Room 211. The mailing address is P.O. Box C-171, Sul Ross State University, Alpine, TX 79832. Telephone: 432-837-8178. Fax: 432-837-8724.

**TENTATIVE CLASS SCHEDULE FOR PSYCHOLOGY 2307:1**

<u>Date</u>	<u>Topic</u>	<u>Assignment</u>
23	Syllabus and Instruction	Ch. 1
25	Introduction and Measurement Scales	
30	Frequency Distributions / Quiz 1	Ch. 2
September 1	Graphs	
6	Measures of Central Tendency	Ch. 3
8	Measures of Variability / Quiz 2	
13	Populations and Samples / Quiz 3	
15	Percentile Ranks/ Standard Scores	Ch. 5
20	Normal Curve / Quiz 4	
22	Regression Analysis/Linear Regression	Ch. 6
27	Correlation / Quiz 5	Ch. 7
29	Pearson Product-moment Correlation Coefficient	
October 4	Coefficient of Determination	
6	Correlation and Causation / Quiz 6	
11	Descriptive vs. Inferential Statistics	Ch. 8
13	Midterm Review	
18	MIDTERM EXAM	
22	Sampling/ Probability and Normal Curve / Quiz 7	
24	Hypothesis Testing/ Significance Level	Ch. 9
28	Type I and Type II errors / Quiz 8	
31	t Test (Independent and Correlated Groups)	Ch. 10
November 1	Research Design/Experimental & Control Groups/Quiz 9	Ch. 12
2	Analysis of Variance/Quiz 10	Ch. 14
8	Quiz 10	
10	One Factor F Test	
15	Interactions / Quiz 11	
17	Nonparametric tests	Ch. 16
22	Chi-Square Test /Spearman Rank-Order Test	
23 – 25	Thanksgiving Holiday	
29	Review of Inferential Statistics / Quiz 13	
December 1	Review of Psychological Statistics	
5	FINAL EXAM 10:15 A.M.	